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Cultural Differences in Post-Traumatic Growth and Coping for Adult Sexual Assault

Survivors:

An examination of Latina, Chicana and Hispanic Women

A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of
Philosophy in Counseling, Clinical and School Psychology

by:

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September 2017

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July 2017

Cultural Differences in Post-Traumatic Growth and Coping for Adult Sexual Assault

Survivors:

An examination of Latina, Chicana and Hispanic Women

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Elisa M. Vasquez

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Thank you to my amazing parents, who always believed that I was capable of achieving my dreams. They instilled in me a love for learning, growing and education. They have been role models for me and provided examples of how I want to live my life. Thank you to my loving sister and her family. They have been a constant support for me throughout this journey.

They have always encouraged me and kept me grounded. Thank you to my wonderful partner. She has seen me through the ups and downs of this program and has never stopped supporting me. She has been incredibly patient and understanding and has helped me get through. Thank you to my excellent advisor, Collie. He has believed in me since the start, even when I had my own doubts about myself and my abilities. He has never wavered in his encouragement and guidance. Thank you to my wonderful friends from home and ones that I have made in this program. Their laughter, support and kindness has made all the difference in the world. I am so appreciative of everyone who has helped me along this journey. It would not have been possible without them.

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2011-2013	M.A., Counseling Psychology University of California, Santa Barbara
2006-2010	B.S., Psychology University of Texas at Austin

Clinical Experience

Intern, July 2016-present
Counseling and Psychological Services (CPS); University of California, Berkeley
Supervisor: Yu Bi, Ph.D.

- Provide individual and couples counseling approximately 20 hrs/week for UCB students with various presenting concerns including anxiety, grief, depression and sexual and gender identity issues
- Conduct crisis counseling two hours weekly and assess for safety, risk and develop immediate intervention plans
- Co-lead a skills-based group focusing on managing depression and anxiety symptoms and received weekly supervision from a licensed staff member
- Co-facilitated a support group for queer womyn of color and received weekly supervision from a licensed psychologist
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Extern, *Counseling Center,* Santa Barbara City College (SBCC) Aug. 2014-May 2016
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- Conduct individual and couples therapy for city college students approx. 10 hrs/week for a range of common presenting concerns such as depression, adjustment issues, anxiety
- Meet with diverse clients of various racial/ethnic backgrounds, sexual orientations, gender identification and SES

- Provide crisis counseling for one hour a week on a drop-in basis
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Group Leader, *Alcohol and Drug Program (ADP)*,

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University of California, Santa Barbara

Supervisor: Whitney Bruice, MFT

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- Attended weekly case consultation supervision groups with other practicum students and staff to discuss clinical issues and relevant course material

Group Leader, *Positive Psychology Psycho-education Group*,

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External Practicum Student,

Sep. 2013- June 2014

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- Conducted weekly intakes with new clients to assess diagnostic impressions, treatment options and gather relevant history
- Attended weekly practicum seminars to learn about current counseling theories and practices

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Sep. 2013- June 2014

University of California, Santa Barbara

Supervisor: Molly Steen, M.A.

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- Led career assessment interpretations with groups of students
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External Practicum Student, *Hosford Community Clinic*,

Sep. 2012- June 2013

Supervisor: Collie Conoley, Ph.D.

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- Conducted structured interview intakes with potential clients
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Basic Practicum Student, *University of California, Santa Barbara*

Jan. - June 2012

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Applied Behavioral Analysis (ABA) Senior Therapist, July 2009-July 2011
Center for Autism and Related Disorders, Austin, TX

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Counseling and Psychological Services (CPS), University of California, Berkeley

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- Attended weekly supervision of supervision groups with two other interns and a licensed staff member to provide and receive feedback and support around supervision issues and topics

Technology and Organizational Climate Supervisor, Sep. 2014- June 2015
Hosford Community Clinic
 Goleta, CA

- Provided on-site supervision to advanced practicum students seeing individual clients, couples and families two nights weekly which involves aiding in skill development and case conceptualization
- Responsible for maintaining technological services and devices including video and audio recordings
- Established a positive clinic climate including being in charge of cleaning schedules, taking meeting minutes and updating the clinic bulletin board each quarter
- Attended Case Assignment Team meetings once a week to discuss client concerns and to assign clients to clinicians following intake

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UC Berkeley Residential Life, Consultation Oct. 2016

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UC Berkeley Kappa Chapter, Panel on Mental Health Resources Sep. 2016

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UC Berkeley Bridges, Presentation on Wellness and Community Sep. 2016

- Co-presented on the challenges of being a student leader and how to address holistic wellness, self-care and building community to a campus group comprised of students of color

UC Berkeley's Mental Health Coalition, Tabling Event Sep. 2016

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UC Berkeley Department of African American Studies, Discussion of Services Aug. 2016

- Co-presented and answered questions about services available at Counseling and Psychological Services

UC Berkeley Residential Life, Resident Assistants Training Aug. 2016

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PI: Merith Cosden, Ph.D.

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- Co-author quarterly reports of demographic information, participants involvement and addiction severity indexes
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- Attend quarterly meetings with program administrators and probation officers to discuss data collection progress

Researcher, *STEM Teacher And Researcher (STAR) Program*,
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Sep. 2011- June

California Polytechnic State University, San Luis Obispo

PI: Collie Conoley, Ph.D.

- Interpreted participant evaluation of the STAR program
- Authored various sections of final report

Research Assistant, *Gender and Racial Attitudes Lab*,
University of Texas at Austin

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PI: Rebecca Bigler, Ph.D.

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- Provided feedback on research progress of graduate students during weekly meetings

Teaching Experience

Teaching Assistant, *CNCSP 250: Cognitive Assessment*,

Sep. – Dec. 2013

University of California, Santa Barbara

Instructor: Erin Dowdy, Ph.D.

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- Created grading rubrics for assessment protocols
- Performed competency examinations to test students' ability to administer assessments

Teaching Assistant, *CNCSP 111: Identity and Pluralism*,

Aug. 2013

University of California, Santa Barbara

Instructor: Melissa Morgan-Consoli, Ph.D.

- Co-proctored and graded final examinations of 15 students
- Guest lectured on the intersection of religion and identity
- Facilitated weekly in-class discussions on varied topics of identity and culture

Teaching Assistant, *CNCSP 112: Positive Psychology*,

Jan. – Mar. 2013

University of California, Santa Barbara

Instructor: Collie Conoley, Ph.D.

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- Proctored and graded midterm and final examinations
- Guest lectured on the process of forgiveness

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- Religion*, CNCSP 111: Identity and Pluralism, University of California, Santa Barbara, 2013
- Forgiveness*, CNCP 112: Positive Psychology, University of California, Santa Barbara, 2013

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- Conoley, C.W. & **Vasquez, E.M.** (2013). Review of how I think about drugs and alcohol questionnaire ACCESSION #: 19093701, *Mental Measurement Yearbook*. Buros Institute: Lincoln, NE.
- Vasquez, E.**, Lee, A.N., & Conoley, C. W. (2012). The effects of capitalization on the celebrator: A positive psychology intervention study. *Positive Psychology: Theory and Application*, 9(1), 20-23.
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Ray E. Hosford Award for Professional Behavior 2013
Block Grant, University of California, Santa Barbara - \$10,000 2012
Hosford Hero Award 2012
Block Grant, University of California, Santa Barbara - \$10,000 2011
Therapist of the Year Award for Center for Autism and Related Disorders 2010

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ABSTRACT

Cultural Differences in Post-Traumatic Growth and Coping for Adult Sexual Assault

Survivors:

An examination of Latina, Hispanic and Chicana Women

by

Elisa Vasquez

This study examined the relationship between religious and meaning-focused coping, their influence of post-traumatic growth and the impact of acculturation on these relationships for Latina women who have experienced sexual assault. Utilizing a descriptive field design, participants were recruited through the online platform, Amazon Mechanical Turk (mTurk) to complete an online-based web survey. One hundred and two participants completed the survey. All participants were female, identified in some way as Latina, Chicana or Hispanic and endorsed experiencing a completed or attempted sexual assault in their lifetimes. The average age for participants was 29.8 years. Regression analyses revealed that meaning-focused coping, though not religious coping, significantly predicted post-traumatic growth when entered together into the regression. The results suggest the importance of meaning-focused coping when creating interventions for this population. Moderation analysis showed that acculturation did not significantly influence the relationship

between religious coping and post-traumatic growth. A second moderation analysis revealed that the Anglo Orientation Scale (AOS), measuring an aspect of acculturation, had a significant main effect and the interaction between AOS and meaning-focused coping was also significant in predicting growth. Additionally, exploratory correlation and regression analyses were employed to determine if any subscales of the meaning-focused coping questionnaire were associated with and predictive of post-traumatic growth. Rational Use of Resources, Long-Term Prevention Strategies, Goals and Situational Beliefs were significant predictors of growth. Implications from the findings are discussed and suggest a need for future research to explore the role that meaning-focused coping, acculturation and religious coping have on post-traumatic growth.

Keywords: post-traumatic growth, religious coping, meaning-focused coping, acculturation

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Cultural Differences in Post-Traumatic Growth and Coping for Adult Sexual Assault

Survivors:

An examination of Latina, Chicana and Hispanic Women

Introduction

While the research on the symptoms and negative effects of experiencing a traumatic event has been well-documented (e.g. Friedman, Keane & Resick, 2014), a recent focus in the positive psychology field has been on the concept of growth following traumatic events. Though this area has been widely researched, little attention has been paid to cultural factors, especially within specific traumatic events. The following literature review explores post-traumatic growth and sexual assault generally as well as specifically within the Latina population. Coping and the impact of acculturation on coping will also be explored in relation to their effect on post-traumatic growth for Latina survivors of sexual assault. The aim of this study is to examine the relationship between coping, the role of acculturation on coping, and post-traumatic growth for Latina women who have experienced sexual assault. Following the literature review, a problem statement, research questions and hypotheses, methods, data analysis and discussion sections will outline the research study and its implications.

This study will address the following research questions within the Latina population who report having experienced sexual assault: How do positive religious coping and meaning-focused coping affect post-traumatic growth? What is the relationship between

positive religious coping and acculturation? Does acculturation affect the relationship between religious coping and post-traumatic growth, and meaning-focused coping and post-traumatic growth? And lastly, which factors of meaning-focused coping are most associated with and predictive of growth, and does acculturation impact these relationships?

Literature Review

Post-traumatic Growth

The term Post-Traumatic Growth (PTG) was introduced in the mid 1990's by Tedeschi and Calhoun (1995), and is defined as positive psychological changes as a result of dealing with a traumatic event. Though the systematic examination of PTG in scientific research is relatively new, the concept that positive changes can result from dealing with life's difficulties has been widespread and is found in ancient ideologies and religious foundations (Calhoun & Tedeschi, 2006). It is important to note that growth following a traumatic event is not a guaranteed result of experiencing the traumatic event and does not explicate that the traumatic event will now be seen in a new light.

According to Tedeschi and Calhoun (2004), a traumatic event does not necessarily need to meet the Diagnostic and Statistical Manual of Mental Disorders-V (DSM-5; American Psychiatric Association, 2013) criterion A of Post-Traumatic Stress Disorder (PTSD) (i.e. the person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence) to be perceived as a traumatic event and potentially lead to PTG. PTG has been found to result from a variety of different life difficulties including war (Kaler, Erbes, Tedeschi, Arbisi & Polusny, 2011) and divorce

¹It is important to note that the terms life stressor, crisis, trauma and traumatic event are often used interchangeably in the literature, but for the purpose of clarity and consistency, the term traumatic event will be used throughout this paper.

(Krumrei, Mahoney & Pargament, 2009). Post-traumatic growth deals with the psychological well-being (PWB) of the individual and not the emotional states which are indicative of subjective well-being (SWB) (Joseph & Linley, 2008). Hyperarousal, avoidance or re-experiencing of the traumatic event are factors affecting SWB, while PWB focuses on one's understanding of their place in the world and the existential difficulties in life (Joseph & Linley, 2008).

There are many models that have been proposed to examine PTG including transformational theory (Calhoun & Tedeschi, 2006) and the Organismic Valuing Theory (Joseph & Linley, 2005). The Organismic Valuing Theory relies on the fact that individuals are motivated to positively adjust to traumatic events and to experiences of life in general. According to this theory, traumatic events result in new information that one either accommodates or assimilates into their lives. *Assimilation* refers to fitting the new information into already existing worldviews, while *accommodation* refers to existing worldviews needing to accommodate the new information. This theory indicates that there are both positive and negative changes resulting from accommodations. Joseph and Linley (2005) suggest that there are three possible outcomes of experiencing a traumatic event: 1) the new information is assimilated into the individual's worldview (e.g. that this traumatic event indicates that the world is a "bad" place and "bad" things will continue to happen), thus making the individual more susceptible to experiencing future traumatic events and returning to their 'pre-traumatic event' selves 2) the information can be negatively accommodated, often resulting in psychopathology (e.g. depression) 3) the information can be positively accommodated, leading to positive changes in an individual's worldview and growth.

The transformational theory proposed by Calhoun and Tedeschi (2006) will be the model examined in this paper as it is a more comprehensive model of growth changes and has received considerable attention, even across cultures (e.g. Weiss & Berger, 2006). This PTG model is a theoretical framework to understand the way traumatic events can lead to growth. The model follows the individual from a pre-traumatic event state to the eventual growth resulting from the traumatic event and relies on the belief that it is the disruption to their assumptive worlds, not the event itself, that promotes growth (Calhoun, Cann & Tedeschi, 2010).

Essential to this theory of growth is the Shattered Assumptions Theory (Janoff-Bulman, 1992) which asserts that we all have certain beliefs and assumptions about the world and a traumatic event shatters these assumptions. It is suggested that more intense, traumatic events cause more disruption to an individual's assumptive beliefs, which will lead to more cognitive engagement and thus, the potential for more growth (Linley & Joseph, 2004). The relationship between disruption of beliefs and growth is curvilinear. That is, while there is a minimal level of disruption that is necessary for post-traumatic growth, if the disruption is too high, the resulting growth does not continue to increase. It might be that extreme levels of experienced traumatic events overwhelms the individual and diminishes the cognitive and psychological resources of that individual.

There are certain areas of growth identified by Tedeschi and Calhoun (1995) that resulted from qualitative data gathered regarding people's experience in growing from traumatic events. There are three general domains of growth: changes in the self, changes in relationships with others and changes in the philosophy of life. These domains are further broken down into five areas: *personal strength*, which includes changes in self-perception

and seeing oneself as stronger than previously believed or increased self-reliance; *new possibilities*, which is identifying new areas of interest, participating in new activities and finding new paths which would not have existed before the traumatic event; *relating to others*, including feelings of greater connection with others as a result of their own experience, having more compassion for others, and an overall greater sense of intimacy and closeness in relationships; *appreciation of life*, which can be a shift in life's priorities, and a greater appreciation for what one has; *spiritual change*, which includes stronger religious faith or greater personal spirituality.

Post-traumatic Growth and Resilience. It is important to note the difference between post-traumatic growth and the similar construct of resilience. In the literature, resilience is defined by Bonanno (2004) as the ability for individuals in “otherwise normal circumstances who are exposed to an isolated and potentially highly disruptive event...to maintain relatively stable, healthy levels of psychological and physical functioning” (p. 20). It is often thought that PTG can be considered a form of resilience, but Calhoun and Tedeschi (2004) draw a clear distinction between the two. The authors acknowledge that a certain amount of psychological stability is needed in order to process the traumatic event and that those who have strong amounts of psychological ability would appear resilient according to their curvilinear model of PTG. However, the distinction between the two is that PTG refers to growth *beyond* the state of functioning prior to the traumatic event, while resilience does not make explicit this concept.

Post-traumatic Growth and Thriving. A construct that is similar to post-traumatic growth is thriving (O’Leary, 1998). Thriving research stemmed from the work in resilience, the difference being that thriving indicates a level of growth beyond that is suggested by

resilience. Carver (1998) states that there are multiple possible outcomes of thriving including increased self-confidence and social support. A fundamental difference in these two constructs is that one can thrive without necessarily having to undergo a traumatic event, though these events may lead to the experience of thriving.

Factors Affecting PTG. There are many factors affecting the amount of PTG that one will experience following a traumatic event including pre-traumatic event factors such as personality. Personality traits such as dispositional hope, optimism, openness and extraversion lead to more growth (Affleck & Tennen, 1996). Additional factors include the existence of role models exemplifying PTG, that is whether an individual knows someone who has gone through something similar and has grown as a result. Those who have models of PTG in their lives are more likely to experience growth (Cobb, Tedeschi, Calhoun & Cann, 2006).

One of the most predictive factors affecting growth is the use of religious coping. An essential distinction is between religiousness and religious coping. Religiousness is viewed as the personal importance one gives to religion (Newton & McIntosh, 2009) and would be included as a pre-traumatic event factor in PTG, while religious coping includes spiritually based responses to traumatic events (Pargament, Smith, Koenig & Perez, 1998). Prati and Pietrantoni (2009) suggest that religious coping might have a greater association with PTG because it is closer to the event itself than a general sense of religiousness. In fact, the authors' findings supported this hypothesis, showing that both religiousness and religious coping were predictors of PTG, but religious coping was a stronger predictor. Religious coping will be discussed further in the coping section of this paper.

Post-Traumatic Growth in the Latino/a Population

The concept of post-traumatic growth and the assessments that resulted were developed in Western, English-speaking countries. Recently, the examination of PTG across cultures has increased significantly and is being investigated in many countries and languages throughout the world (see Weiss and Berger, 2010 for a review).

In the United States of America, Latino/as make up approximately 17 percent of the population (U.S. Census Bureau, 2013), thus many research efforts have focused on understanding more about this group of individuals. Of note, Latina/o is used in a broad way throughout this paper for simplicity, though it is important to acknowledge that there are many differences that exist within this population and people may identify in a variety of ways including Hispanic and Chicana/o. For the purposes of this study, Latina/o is used as an umbrella term to represent individuals who have Latin American heritage. Despite differences in racial and ethnic backgrounds of American Latino/as, there are overarching cultural values and norms present (Castex, 1994) including *familismo*, which is a predominant value and emphasizes the importance of family closeness and cohesion, with the needs of the family taking precedence over the needs of the individual. The concept of *personalismo* refers to the importance placed on getting along with others and personal characteristics and inner qualities representing personal goodness (Marín, 1989 as cited in Guilamo-Ramos, Dittus, Jaccard, Johansson, Bouris & Acosta, 2007).

Importantly, the Latino culture largely holds religion and spirituality as a central element in their belief system. While many Latino/as adhere to common Christian subsets, including Catholicism, indigenous beliefs such as *Santeria*, which is practiced in the form of rituals, dancing, drum beating and the use of herbs and potions for healing, and

Curanderismo, which includes relying on traditional healers who use religious paraphernalia, herbal recipes, massages and tarot cards to heal physical and emotional ailments are also practiced (Tafur, Crowe, & Torres, 2009). These religious and indigenous practices can be influential in shaping many Latino/as' meaning making and stress coping strategies (Gonzalez, 2002), though it is important to note that not all Latino/as engage in such practices. Given the general importance of religion and spirituality in the Latino/a population, it is imperative that these values and beliefs be assessed in relation to coping with stressful life events.

There have been few studies looking specifically at PTG constructs in relation to the Latino/a culture. Some of the correlates explored within this population have been religiousness and social support. It has been suggested in the literature that increased PTG in ethnic minorities may be due to the use of religious coping when dealing with life challenges (Stanton, Bower & Low, 2006). Indeed, Smith, Dalen, Bernard and Baumgartner (2008) found that Hispanic women had higher levels of PTG than non-Hispanic white women and that the role of spirituality and religion accounted for the difference.

Post-Traumatic Growth and Sexual Assault

Sexual assault occurs for both men and women, though it has been consistently found that women experience sexual assault at disproportional rates (e.g. Alvidrez, Shumway, Morazes, & Boccellari, 2011; Black, et al., 2011). Nearly 20 percent of women have reported some form of sexual assault during their lifetime (Tjaden & Thoennes, 2000). The extant literature has found that women who have experienced sexual assault were between 2 and 8 times more likely to endorse PTSD symptoms than non-victimized women (Walsh et al., 2012). Negative psychological effects have been consistently documented in the literature for

victims of sexual assault. Arellano, Kuhn and Chavez (1997) found that females who experienced sexual assault at some point in their lives experienced more emotional distress and social isolation than those who had not been assaulted.

The research on PTG has largely focused on traumatic events related to medical conditions (i.e. cancer) and less is known about the impact resulting from sexual assault. Shakespeare-Finch and Armstrong (2010) examined PTG differences for individuals experiencing three different traumatic event domains including sexual assault, motor vehicle accidents and bereavement. The authors found that there were significant differences among the groups on 3 of the 5 PTG domains (appreciation of life, relating to others and new possibilities). The participants in this study completed the PTGI to assess growth following the traumatic event and an effect size of .33 was found. Those experiencing sexual assault experienced less post-traumatic growth in these three areas than did those who were victims of a motor vehicle accident and those who were dealing with the loss of a loved one. It is suggested that because of the intentional nature and threat of physical danger that often accompanies sexual assault, lower levels of growth are expected. Additionally, Frazier and Berman (2008) indicate that the stigma of being a victim of sexual assault also accounts for some of the differences found.

There has been increasingly more research focused on the relationships between post-traumatic growth, symptoms of distress and factors which might aid in experiencing growth for victims of sexual assault. Women who identified more growth following sexual assault also reported fewer symptoms of depression, anxiety and PTSD and increased satisfaction with life. It is important to note that the sample for this study was comprised of women of various ages. Positive changes in life were assessed in 4 domains including changes in self,

spirituality, relationships and empathy (Frazier, Conlon, Steger, Tashiro & Glaser, 2006). Reported growth was positively correlated with levels of social support, religious coping, approach coping and a greater sense of control over recovery. Approach coping was the strongest correlate of perceived positive life changes, though religious coping was also a strong correlate. In this study, religious coping was assessed using a list of ten questions adapted from three other questionnaires and examined the role of religious thoughts and behaviors. Additionally, approach coping was comprised of two subscales: cognitive restructuring, which included statements such as “I tried to get a new angle on the situation” and expressing emotions (Frazier, Tashiro, Berman, Steger & Long, 2004).

Sexual Assault in the Latino/a Population. According to recent studies, Latina women experience sexual victimization at a rate similar to the national average for women (17.2%) (Cuevas & Sabina, 2010) and similar to European American women, who have consistently reported high rates of victimization (Littleton, Grills-Taquechel, Buck, Rosman, & Dodd, 2013). Results vary, however, with some studies reporting higher rates for Latina women. MacFarlane, Wiist and Watson (1998) found that 32% of pregnant Latina women endorsed being sexually abused by their male partners in the previous 12 month period. Another study showed that 25% of Latina women reported experiencing childhood sexual assault and 18% reported being raped, with the rate of being raped in adulthood being 4 times higher for Latinas experiencing childhood sexual assault (Urquiza & Goodlin-Jones, 1994). Of note, these statistics were gathered over two decades ago, thus rates may be different currently. More current statistics report that non-Latina women experience rape/sexual assault at a rate of 0.6 per 1000 compared to Latina women who experienced sexual assault/rape at a rate of 2 per 1000 (U.S. Department of Justice, 2010).

Kaukinen and DeMaris (2005) examined depression among women and found that sexual assault was a significant predictor of depression for all ethnic and racial groups but for Latinas in particular, a history of childhood sexual assault increased the risk for depression. Hispanic women are also more likely than white women to experience self-blame in relation to childhood sexual assault which increased with multiple perpetrators. This was linked to both internal attribution, or that the victim was the reason that these events happened (e.g. “I didn’t say no, I was unsure that it was wrong”) global attributions about the event, or in a way, the idea that these events are to be expected (Katerndahl, Burge, Kellogg & Parra, 2005; Kellogg & Hoffman, 1997). Generally, Latina women experience a higher rate of PTSD than non-Latina females, though these results did not look at the context of sexual assault specifically (Pole, Best, Metzler & Marmar, 2005).

The Sexual Assault Among Latinas (SALAS) Study was a national survey conducted in 2008, which gathered information about type of victimization and help-seeking behavior (for a full review of survey procedures see Cuevas & Sabina, 2010). Types of victimization were classified as physical assault, sexual assault, stalking, weapon victimization and threat victimization. Help-seeking behaviors include formal behaviors such as seeking medical attention, disclosing the victimization to police, seeking professional counseling help and informal behaviors such as disclosing to parents, siblings, friends and professionals such as colleagues or religious figures. Analyses of the results indicated that Latina women who had experienced sexual assault were significantly less likely to seek both formal and informal help compared to other forms of victimization. This may be due in part to the lack of awareness of local and U.S. resources, especially for Latina women who have recently moved to the United States.(Sabina, Cuevas & Schally, 2012). Additionally, hesitance to

disclose personal information to non-family members is often a cultural value in the Latina/o population (Fierros & Smith, 2006).

The majority of the literature for sexual assault in the Latino/a population is based on the sexual victimization of women. However, Latino men are also at risk for experiencing high levels of sexual violence. A recent report suggested that 26.6% of Hispanic men have experienced some form of sexual violence (e.g. sexual coercion or unwanted sexual contact) in their lifetime, though rape was not included in the analysis. Though high, the rate was comparable to men of other races/ethnicities and lower than the lifetime prevalence of sexual violence experienced by Hispanic women. Additionally, Hispanic women experienced rape at a rate of 13.6%, while the rate of rape for Hispanic men was not able to be calculated as the rates were too low (Breiding, Smith, Basile, Walters, Chen & Merrick, 2014). Despite the rate of sexual assault for Latino men, Latina women remain disproportionately victimized.

Post-Traumatic Growth and Coping

Coping has been a focus of research for the past four decades and much of it can be traced back to Richard Lazarus' book *Psychological Stress and the Coping Process*, published in 1966 which emphasized the importance of cognitive and emotional processes people employ when dealing with a traumatic event. Continuing this trajectory, Lazarus and Folkman (1984) defined coping as "thoughts and behaviors that people use to manage the internal and external demands of situations that are appraised as stressful" (Folkman & Moskowitz, 2004, pg. 746). The ways in which people choose to cope with stress are complex and involve many different strategies. Past research on the effects of coping has largely examined the impact of coping on the management of distress. Currently, however,

studies are focusing on the role of positive emotions in the coping process and efforts to maintain these emotions after a stressful event (Folkman & Moskowitz, 2004).

A four-factor model was suggested after many studies and theories and predominates the coping research. These four factors are: problem-focused coping, which focuses on the problem or stressor causing the distress; emotion-focused coping, which in turn, focuses on alleviating the negative emotions that accompany the traumatic event or problem (Folkman & Lazarus, 1980); meaning-focused coping, which includes strategies employed to make meaning of the situation (Gottlieb & Gignac, 1996; Park & Folkman, 1997); and social coping, which involves seeking support from others in relation to the traumatic event (Carver, Scheier & Weintraub, 1989). An additional factor of religious coping was suggested by Pargament, Koenig and Perez (2000) as they found that many individuals employ religious or spiritual coping strategies such as praying or attending church services when faced with potentially traumatic events, though the four factor model is most often used in the literature.

Different distinctions have also been made in relation to coping strategies which focus more on the behavioral aspects of the method. Two distinct coping strategies have been widely accepted in this area: approach coping, which is directly dealing with the stressful event or the emotional aspects of the event, and avoidance coping, which involves disengagement from the stressor or related emotions (Moos & Schaefer, 1993). This distinction provides a different way of grouping the previously established methods of coping, with most forms of coping, such as problem-focused, meaning-focused and social coping fitting into the approach coping category. Some examples of emotion-focused approach coping are cognitive restructuring and emotion regulation. Avoidance coping is

often emotion-focused in nature and includes strategies such as denial and avoidance of feeling emotions. This distinction provided yet another way of classifying the complex process of coping with traumatic events.

Once the factors appeared to be established and comprehensive of different methods of coping, research began focusing on the adaptiveness and effectiveness of these methods. A challenge in capturing the effectiveness of various coping strategies is that many can be employed at once and the adaptability of certain methods will vary depending on the stressor and context (Folkman & Moskowitz, 2004). For example, it may be adaptive to distance oneself from the emotional pain of the death of a loved one at the onset (emotion-focused coping) and then move toward more planning for future goals (problem-focused coping) once the distress becomes manageable. Conversely, if one is faced with an upcoming deadline at work, it may be adaptive to begin with active coping to complete the task and then later to seek out emotional support from colleagues about the distress (social coping). Thus, researchers are hesitant to label any coping strategy ‘adaptive’ or ‘maladaptive’, or ‘functional’ or ‘dysfunctional’ given the importance of the context in determining effectiveness.

Recent research has begun to focus on the effectiveness of various types of coping strategies specifically with the experience of traumatic events. A study done by Riolli and Savicki (2010) examined the effectiveness of fifteen different coping strategies, representing various types of coping, with soldiers in the Iraq war. These 15 factors are those suggested by the COPE model (Carver, Scheier & Weintraub, 1989) and include religion, planning and active coping. The authors found that positive reappraisal, emotional support and humor were most strongly (and inversely) related to psychological distress, thus being positively

correlated with psychological adjustment. Venting emotions, alcohol and drug use, denial and emotional and behavioral avoidance were positively related to psychological distress. Similarly, Cantón-Cortés and Cantón (2010) looked at differences in coping and Post-Traumatic Stress Disorder (PTSD) between female college students who experienced childhood sexual assault (CSA) and a comparison group. Coping was measured using a scale that was comprised of 5 dimensions of coping that are generally divided into approach and avoidant scales. Avoidant coping includes self-destructive, nervous/anxious and evasion subscales. The approach coping scale included subscales assessing cognitive strategies (i.e. “Trying to rethink the situation and to see it from a different perspective”) and expressive strategies (i.e. “Talking to family and friends about your feelings”). They found that survivors of CSA employed fewer approach strategies than the control group and avoidance coping was positively related to PTSD.

A meta-analysis on the effectiveness of avoidance/approach in relation to psychological distress by Littleton, Horsley, John and Nelson (2007) continued to support aforementioned findings, with a moderate effect size ($r=0.37$) for the relationship between avoidance coping and psychological distress. Specifically, the use of avoidance coping was significantly related to measures of general distress, depression and PTS symptoms. Additionally, they found virtually no relationship between approach coping and distress, with results from the thirty-nine studies included in the study. The meta-analysis grouped these studies into two broad categories of traumatic events: interpersonal violence (e.g. domestic violence, physical assault, sexual assault, robbery) and severe injury (e.g. head injury, spinal cord injury, burns), though the majority of the studies assessed interpersonal violence events.

The results from this comprehensive study highlight the difficulty in finding consistent results across diverse traumatic events.

Even more recently, the research has started to focus on the use of coping strategies in relation to post-traumatic growth. Several studies have sought to determine if certain strategies are more predictive of growth amongst clients experiencing an array of traumatic events. The effectiveness of approach strategies has been shown to be positively associated with PTG (for a review of correlates to PTG in cancer, see Stanton, Bower & Low, 2006). Specifically, problem-focused and approach methods significantly predicted post-traumatic growth in cancer patients. This study also assessed the amount of growth experienced 6 months following an initial assessment. The initial assessment was conducted while the patients were undergoing chemotherapy and they were at different time points in their treatment, though all were conducted after the patient had been informed of their cancer diagnosis. The time since diagnosis and time in chemotherapy was not included in the study. Approach coping remained significant after accounting for T1 levels of PTG. Additionally, problem-focused coping at T1 significantly predicted PTG 6 months after initial observation. Post-traumatic growth was assessed by using the PTGI (Tedeschi & Calhoun, 1996) and was administered at both T1 and T2 (Scrignaro, Barni & Magrin, 2011).

A meta-analysis done by Prati and Pietrantonio (2009) looked at 103 studies that examined coping strategies in relation to growth after a traumatic event. It's important to note that growth was not always explicitly post-traumatic growth, but was also referred to as benefit finding, perceived benefit, adversarial growth, thriving and positive life change. Results from the analyses suggested that religious coping and positive reappraisal coping (meaning-focused coping) had the greatest effect sizes, $r=.38$ and $r=.36$, respectively. The

meta-analysis examined 31 studies that included religious coping measures. It is hypothesized that the utilization of religious coping specifically for dealing with the event influences the relationship between religious coping and growth. Pargament and colleagues (2000) state that religion is integrated into individuals' daily lives and serves a variety of functions including providing comfort, serving as a framework for gaining control of a situation and encouraging a sense of closeness with others in the religious community. As mentioned previously, and in support of the Brief RCOPE measure created by Pargament et. al. (2000), the meta-analysis found that general religious coping was not as influential as positive religious coping. This indicates that there are certain coping strategies that might be more adaptive, though previous religious coping measures were subscales of larger coping measures and were largely unidimensional.

Coping and Sexual Assault. The literature on sexual assault victims and the role of coping strategies has largely focused on the relationship between these two in relation to Post-Traumatic Stress Disorder, depression and adjustment following sexual assault (e.g. Ullman, 1996; Ullman & Peter-Hagene, 2014). The results from these studies indicate, similarly to other studies focusing on coping in relation to experiencing traumatic events in general, that avoidance coping was positively correlated with increased psychological symptoms (Ullman, 1996). Additionally, the use of positive coping strategies such as positive reframing, disclosing and discussing the assault (in this case childhood sexual assault) and minimization was associated with better emotional adjustment (Himelein & McElrath, 1996). Contrary to these consistent findings, a study done by Arata and Burkhart (1998) found that the use of adaptive coping strategies were not effective in reducing symptomology in a group of 229 female undergraduate students. The inclusion criteria for this study were that the

participant had experienced acquaintance sexual assault, thus those who were assaulted by strangers were excluded. The findings do not necessarily indicate that the use of active coping strategies is ineffective as other factors such as time since the traumatic event may have influenced the results. Indeed, the authors suggest that the results might show that the coping strategies did not yet have time to influence symptomatology.

Religious Coping and Sexual Assault. A majority of the literature published on coping and sexual assault focuses specifically on the construct of religious coping. According to Pargament and colleagues (1998), religious coping can be divided into both negative and positive dimensions. Positive religious coping includes strategies that help people feel closer to God and feel spiritually connected to others. Negative coping, in contrast, includes strategies that disconnect the individual from their spirituality. Studies examining the relationship between religious coping and sexual assault have been mixed. The use of religious coping has been linked to increased symptoms of depression and PTSD among African American assault survivors (Bryant-Davis, Ullman, Tsong & Gobin, 2011), though endorsement of psychological distress does not contraindicate growth and growth following sexual assault was not examined in this study. Additionally, it is suggested that the impact of religious coping on dealing with traumatic events may be influenced by the strategies used. In fact, Ahrens, Abeling, Ahmad and Hinman (2010) found that positive religious coping has also been associated with increased psychological well-being and lower levels of depression. Post-traumatic growth was also significantly influenced by the use of positive religious coping (e.g. experienced God's love and care, received support from clergy). The measures used were a longer version of the RCOPE (Pargament, Ensing, Falgout & Olsen, 1990) to measure religious coping and the PTGI to examine growth following traumatic events. It is

important to note that this study looked at rape survivors, which makes up only a percentage of all sexual assault experiences.

Acculturation and Coping. Studies examining cultural differences attempt to understand *why* certain differences exist between Latino/as and other ethnic/racial groups. Acculturation is a factor that has been suggested to influence many other concepts including mental health concerns and adjustment (e.g. Torres, 2010). Acculturation has been well-researched though there exist discrepancies in the definition and conceptualization of acculturation. Acculturation can broadly be defined as cultural pattern changes that occur as a result of different cultural groups being in continuous contact (Redfield, Linton & Herskovits, 1936). Within the Latino/a population, acculturation broadly includes changes in traditional Latino/a values, beliefs, attitudes and behaviors to fit into the mainstream U.S. culture. Despite the multidimensional aspects of acculturation, it is often researched in the literature via unidimensional measures including language preference and generational level (Lara, Gamboa, Kahramanian, Morales & Bautista, 2005). This poses a problem in understanding the influence of acculturation in research as results from unidimensional measures might not capture the nuances and complexity of experiences of acculturation. It has been suggested in the acculturation literature that more robust measures of acculturation be used to get the most comprehensive view of the construct.

The relationship between acculturation and coping has been a focus of attention in recent decades. It has been suggested that coping is culturally influenced as these coping behaviors are often learned and cannot be extricated from one's cultural context (Berry, 2006). Specifically with the Latino/a population, research has indicated that more acculturated people tended to employ more negative coping styles including passive problem

solving and problem avoidance, while less acculturated individuals use more social coping and spiritual coping. This study examined coping styles for HIV positive Latina women and it is important to note that the coping measure used was specifically tailored to coping with HIV (Sanchez, Rice, Stein, Milburn & Rotheram-Borus, 2010). Additionally, Bianchi, Zea, Poppen, Reisen and Echeverry (2004) found that more acculturation indicated increased employment of health behaviors. Active coping, in this study assessed with three questions about self-care in dealing with HIV, was a mediating factor in the relationship between acculturation and health behaviors. The majority of research done on this topic focuses on the relationship between health behaviors and coping, and though some evidence exists for the differences in coping styles based on acculturation, further research is needed to assess these differences in different stressful contexts.

Problem Statement

The construct of post-traumatic growth has received considerable empirical attention in recent years, a trend that coincides with the growth of the field of positive psychology as a whole. Because of the nascent nature of this topic, many areas remain unexamined in the literature. For example, extant research has yet to determine consistent cultural differences in the experience of growth following traumatic events, and further still, to determine reasons for any differences found.

The factor of religious coping has been suggested to be a potential factor that might be different among ethnic minority individuals including the Latina/o population. Previous research indicates that the use of religious coping (and positive religious coping specifically) is higher for those who identify as ethnic minorities (Stanton, Bower & Low, 2006). Studies consistently find that the use of religious coping is higher for Latina/os than their Caucasian

counterparts (e.g. Ano & Vasconcelles, 2005). Because religious coping is so highly linked to experiences of growth following traumatic events and is also linked to ethnic minority status, it is important to look at the Latino/a population specifically in this area. What, specifically, might account for any significant relationship found (e.g. acculturation level)? Research examining PTG in Latino/as might prove fruitful in facilitating post-traumatic growth for this population and understanding the complex nature of cultural influence.

The use of meaning-focused coping has been identified as one of the two strongest predictors of post-traumatic growth, though it is usually examined as a subscale in measures that look at coping strategies in general. In fact, researchers attempting to examine the construct of meaning-focused coping specifically tend to use questions from other general questionnaires of coping (e.g. Gruszczynska & Knoll, 2015). Despite this reality, it does not appear that there has been substantial effort to expand on the area of meaning-focused coping by developing a more comprehensive measure. Gan, Guo and Tong (2013) created a specific Meaning Focused Coping Questionnaire (MFCQ) that was validated for Chinese adolescents, though it has not been validated with adult Western populations. The use and validation of such a measure can provide more robust information about the construct of meaning focused coping and provide support for further use of a specific measure, much like the use of religious coping measures. Additionally, validation might be more easily translated to more collectivistic cultures including the Latina/o population.

Additionally, though the area of sexual assault has been well-researched in the field of post-traumatic growth, little work has been done examining the effects of culture. As mentioned previously, the majority of the work done in the area of PTG following sexual assault include racial/ethnic identity as a factor in the analyses, though a more comprehensive

view of culture is not explored in relation to these constructs. The issue of whether cultural identity influences the amount of growth following a sexual assault remains unanswered.

The Latina population has experienced sexual assault at disproportionately higher rates than their male counterparts (Breiding, Smith, Basile, Walters, Chen, & Merrick, 2014) and at similar rates to the national average for women (Littleton, Grills-Taquechel, Buck, Rosman, & Dodd, 2013). Despite similar rates of sexual victimization across race/ethnicity, the Latina population is particularly vulnerable to the negative mental health outcomes of experiencing sexual assault including depression and self-blame (e.g. Kaukinen & DeMaris, 2005). Latina women who have been sexually victimized seek out less informal and formal support than Latinas who have experienced other forms of victimization (e.g. weapon victimization) (Sabina, Cuevas & Schally, 2012). Given these disproportions, it is important to attempt to promote the coping and growth that can occur from experiencing sexual assault for this population. Thus, further exploration of the unique factors that affect how Latina individuals cope and grow following sexual assault is needed.

The current study aims to fill the gap in the literature by assessing the intersection of acculturation, sexual assault, coping and growth within the Latina population. While some of these constructs have been examined together, no study exists which looks at the relationship between these four factors. Specifically, this study examines factors within meaning-focused coping that might contribute more to growth than other factors. These factors will be examined in the context of sexual assault in the Latina population in the hopes that it will illuminate potential factors that might aid in the facilitation of post-traumatic growth for this population.

Research Questions and Hypotheses

Based on previous findings, this study proposes the following research questions which are followed by hypotheses investigating the research questions:

1. How do positive religious coping and meaning-focused coping affect post-traumatic growth?
 - a. Higher use of both meaning-focused and positive religious coping will predict higher levels of post-traumatic growth;
2. What is the relationship between positive religious coping and acculturation?
 - a. Higher use of positive religious coping will be related to less acculturation (i.e. negatively correlated with AOS and positively correlated with MOS)
3. Does acculturation affect the relationship between religious coping and post-traumatic growth, and meaning-focused coping and post-traumatic growth?
 - a. Acculturation will moderate the relationship between religious coping and growth;
 - b. Acculturation will not significantly influence (moderate) the relationship between meaning focused coping and growth;
4. Which factors of meaning-focused coping are associated with growth and does acculturation impact these associations?
 - a. This is a non-directional hypothesis, as the extant literature does not support a specific hypothesis for the subscales of meaning-focused coping. Exploratory analyses will be run to determine if any factors are associated with growth. Acculturation will be examined as a covariate between growth and meaning focused coping for all subscales in an additional correlation analysis. Additionally, a regression will be run to determine if any factors are predictive of

growth. Acculturation will also be included as a covariate in an additional regression analysis.

Method

Participants

Participants were recruited through Amazon Mechanical Turk (mTurk), an online marketplace that allows individuals to complete tasks for compensation. Settings on mTurk allow for specification of location, age language proficiency and accuracy rating through mTurk. In an attempt to ensure that the participants gathered were consistent with the target population, safeguards were employed with the use of mTurk. Specifications were made with regard to location, age, language proficiency and accuracy ratings. Accuracy ratings are based on the percentage of completed tasks that were ‘approved’ by the creator of the task. That is, when mTurk workers complete tasks, these tasks are reviewed by the creator of the task to ensure that the task was completed in an accurate way (e.g. that they answered validity questions correctly, that they followed directions, etc.). The percentage of tasks that are ‘approved’ for each mTurk worker make up their overall accuracy rating. For this study, anyone who is in the U.S., is 18+, has a WorkerID (created through Mturk), has English proficiency and has an Mturk accuracy rating of at least 90% were able to participate in the eligibility survey.

Five-hundred and eight individuals completed the eligibility survey on mTurk. Of those participants, one-hundred sixteen were eligible and participated in the entire research survey. Four of these participants did not complete any of the items on the measures and were removed from the analyses. As a way to check the validity of the responses, length of completion time was examined. Based on the frequency distribution of the length of

completion time, the majority of the participants fell between 200 and 700 seconds. Participants that completed the questionnaires in less than three minutes were deemed to be non-deliberative. Thus, those whose completion time was less than three minutes ($N = 11$) were removed from the analyses. Of the remaining 101 participants, 100% identified as a woman and the average age was 29.80 years ($SD = 8.65$). Participants were able to identify with all races/ethnicities that applied to them, thus percentages of racial/ethnic identities will not add up to 100%. The breakdown for racial/ethnic identities were as follows: 87.1% identified as Latina, 16.8% identified as Hispanic, 3% identified as Chicana, 12.9% identified as White/Caucasian, 1% identified as Asian/Pacific Islander, 3% identified as Black/African American and 5% identified as Native American. The majority of the participants identified as heterosexual (79%), 12% identified as bisexual, 5% identified as pansexual, 3% identified as gay/lesbian and 1% identified as queer. Overall, 74.3% endorsed a belief in God and 88.1% endorsed a belief in a Higher Power (see Table 1 in Results section for demographic variables).

The vast majority of respondents (91%) experienced completed sexual assault, 97% experienced attempted sexual assault and 87.1% experienced both completed and attempted sexual assault. For completed sexual assaults, 63.6% occurred before the age of 18 and 36.4% occurred after the age of 18. For attempted sexual assaults, 64.6% occurred before the age of 18 and 35.4% occurred after the age of 18. It is important to note that some participants did not complete all demographic items (i.e. they skipped or forgot to answer some questions), though all percentages were corrected for these missing items and represent the valid percent.

Power Analysis. A power analysis will be conducted using G*Power 3 power calculator (Faul, Erdfelder, Lang & Buchner, 2007) to determine the appropriate number of participants needed to have sufficient power for the proposed analyses. Previous research has suggested setting power at .80 and this has become a field wide standard for conducting scientific research (Heppner et al., 2008). Effect sizes of .02, .15 and .35 have been defined as small, medium and large effect sizes, respectively, for multiple regression analyses (Cohen, 1992). Previous research in this area is limited. Existing research suggests that there are small to medium effect sizes for predicting post-traumatic growth for religious coping ($F^2 = .16$) (Gerber, Boals & Schuettler, 2011) and positive reappraisal or meaning-focused coping ($F^2 = .09$) (Sears, Stanton & Danoff-Burg, 2003), thus the effect size for this study was set at .07. Given the hypotheses, which include correlation and multiple regression analyses, the most complicated analysis is a moderation analysis, which has seven predictor variables, including the interaction effects, and one dependent variable. Thus, a one tailed multiple regression was used (as we are predicting directionality) to conduct a power analysis in order to establish a required sample size, with effect size of .07, power set at .80 and alpha set at .05. With all these parameters set, the required sample size is 90.

Instrumentation

This study explores the constructs of coping and post-traumatic growth for sexual assault within the Latina population. Specifically, meaning-focused coping and religious coping were assessed in relation to growth, as they have been linked to growth in previous research (e.g. Prati & Pietrantonio, 2009). Given that coping has been shown to be culturally influenced (e.g. Torres, 2010), specifically the concept of acculturation, it was important to include this factor in relation to growth within the Latina population. Previously developed

measures were used to assess experience of sexual assault, meaning-focused coping, religious coping, post-traumatic growth and acculturation. Some of the measures were modified slightly to measure these variables and constructs (see Appendices A- F).

Eligibility Survey. The eligibility survey gathered basic information about the participants for the purpose of determining eligibility for taking the full research questionnaire. The brief 5-question survey asked individuals to provide age, gender identity (chosen from a list of common identities, with the option to write in a different identification should they choose), race/ethnicity (with the option of identifying with more than one race/ethnicity and to write in additional identities) and endorsement of both completed or attempted sexual assault experiences (see Appendix A). It is important to note that there is a difference between race and ethnicity. Generally speaking, race commonly refers to phenotypical differences and ethnicity refers more to “cultural differences” (Wade, 2017). The current study combines the terms for simplicity, though this can sometimes be confusing and importantly, they are two distinct concepts. It is possible that some participants may identify with the Caucasian/White race and still identify as Latina/Chicana/Hispanic; that is, they are not mutually exclusive.

Demographics. As part of the full questionnaire, similar information was gathered as the eligibility survey (i.e. age, gender identity, race/ethnicity). Additionally, sexual orientation, generational status (or how long their family has been in the United States) and belief in God or a Higher Power was also gathered.

Sexual Experiences Survey (SES; Koss, Abbey, Campbell, Cook, Norris, Testa, et al., 2007). Three questions will be combined from this measure to which the participant will respond either ‘yes’ or ‘no.’ Two questions will be asked about both completed and

attempted oral, vaginal or anal sex with body parts or objects without their consent. Additionally, the questions include experiences of sexual assault including fondling, touching, kissing and having clothing removed without consent (see Appendix B). These questions have been used in previous research assessing sexual assault (e.g. Lehavot, Molina & Simoni, 2012) and have reported α of 0.79.

Meaning-Focused Coping Questionnaire (MFCQ). The MFCQ (Gan, Guo & Tong, 2013) is a 26-item self-report questionnaire measuring an individual's use of meaning-focused coping when dealing with traumatic events (see Appendix C). The measure is made up of 8 subscales of meaning including changes in global beliefs (e.g. "I tried to seek consolation from my beliefs), rational use of resources (e.g. "I gained strength from the help of others"), acceptance (e.g. "I have accepted the fact that things have happened"), situational beliefs (e.g. "I tried to consider the event from a broader standpoint"), goals (e.g. "I sought a new outlook on life and reassessed my values"), meaning making (e.g. "I considered why the traumatic event happened at that moment"), long-term prevention strategies (e.g. "I adjusted my view on this matter continuously over time"), and heuristic thinking (e.g. "The words of my classmates or others gave me the inspiration for a new idea"). Individuals indicate on a likert-scale ranging from 1 (*I do not usually do this*) to 4 (*I usually do this*) the amount they utilize each meaning-focused coping strategy. The scale demonstrated an overall good reliability of .86 (Gan, Guo & Tong, 2013). The current study found a similar internal consistency of .89. The scale yields a score for overall meaning-focused coping as well as individual factor scores. Higher scores indicate higher use of meaning-focused coping.

Though meaning-focused coping has been researched extensively in the field of coping with traumatic events, no other scale aside from the Meaning Focused Coping

Questionnaire exists. Previous measures of meaning-focused coping only exist as subscales of larger measures of coping. Because the MFCQ comprehensively and extensively measures meaning-focused coping, it was chosen to represent the meaning-focused coping construct in relation to coping with sexual assault. Additionally, the Meaning-Focused Coping Questionnaire was piloted by two female, Latina identified graduate students to ensure that the questions/themes seemed culturally relevant. These two students confirmed that the measure was clear, coherent and appropriate based on their experience as Latina women.

Brief RCOPE. The Brief RCOPE is a scale of religious coping developed by Pargament, Koenig and Perez (2000) and is a 14-item self-report questionnaire that measures the participants' use of both positive and negative aspects of religious coping (i.e. Sought God's love and care; I wondered whether God had abandoned me) (see Appendix D). There are 7 positive coping items and 7 negative coping items. The participants are asked to indicate on a likert-type scale ranging from 0 (*not at all*), to 3 (*a great deal*), the amount they used each coping strategy when dealing with their traumatic event. This measure has been consistently used in the literature and has shown good internal consistency. The internal consistency from the original text was for the positive coping scale was .92 and for the negative coping scale was .81 (Pargament, Feuille & Burdzy, 2011). The current study found internal consistency of .96 and .91 for the positive coping scale and negative coping scale, respectively. Previous research specifically with the Hispanic population shows an internal reliability of .81 for the positive coping scale and .71 for the negative coping scale (Van Dyke, Glenwick, Cecero, & Kim, 2009). The positive and negative coping scales are scored separately; the items are totaled for overall positive and negative religious coping scores. Higher total scores indicate higher use of religious coping.

Post-Traumatic Growth Inventory (PTGI). The PTGI (Tedeschi & Calhoun, 1996) is a 21-item self-report questionnaire that measures growth on five dimensions: Relating to Others, Appreciation of Life, New Possibilities, Personal Growth and Spiritual Change (see Appendix E). The participants indicate the degree to which each statement of change was experienced following a traumatic event. Examples of statements are: *“I have a greater sense of closeness with others.”* and *“I discovered that I’m stronger than I thought I was.”* Respondents use a 6 point Likert-scale ranging from 0 (*I did not experience this change as a result of my crisis*) to 5 (*I experienced this change to a very great degree as a result of my crisis*). For the current study, to increase clarity, the statements will be changed to specify sexual assault (i.e. *I experienced this change to a very great degree as a result of my sexual assault*). The responses to these statements can be summed to yield an overall PTG score, though individual subscales can also be separately scored, with higher scores indicated greater amounts of perceived growth.

The PTGI has shown good internal reliability (.90) and test-retest reliability (.71) (Tedeschi & Calhoun, 1996). The current study showed an internal reliability of .95. Previous research examining the Hispanic population in comparison to non-Hispanic White women found an internal reliability of .97, though this represents the overall sample and is not split into Hispanic and non-Hispanic White samples. This measure was chosen as it is relatively comprehensive in examining post-traumatic growth and represents the 5-factor model described in the literature review.

Acculturation Rating Scale for Mexican Americans – II (ARMSA-(II)). The ARMSA-II (Cuellar, Arnold & Maldonado, 1995) is a 48-item measure of acculturation consisting of two scales. Scale 1 assesses orientation to both Anglo and Mexican heritages

and Scale 2 assesses acceptance of attitudes, values and behaviors of Mexican and Anglo cultures. Participants respond to statements (e.g. “I enjoy reading books in Spanish”) on a 5-point Likert scale, ranging from 1 (*not at all*) to 5 (*extremely often or almost always*).

Though the two scales can be used either in conjunction or independently, most studies use only scale 1 (i.e. the Mexican Orientation Scale and the Anglo Orientation Scale) (e.g. Yoon, Langrehr & Ong, 2011). Cuellar and colleagues (1995) identified the scale 2 as “experimental” (p. 283) and Lessenger (1997) found that scale 2 was not as reliable as scale 1. Thus, only scale 1 will be described and used in this study.

Scale 1 is composed of two subscales, the Mexican Orientation Score (MOS; $\alpha = .85$) and is made up of 17 questions assessing participants’ orientation to their Mexican heritage. The second subscale is the Anglo Orientation Score (AOS; $\alpha = .88$) is composed of 13 questions and assesses the participants’ orientation to the Anglo (Caucasian) orientation (see Appendix F). The MOS and AOS are scored by taking the mean of their respective items. The current study found $\alpha = .92$ for the MOS and $\alpha = .77$ for the AOS.

The results from these scales can be used uni-dimensionally, by subtracting the MOS from the AOS, or bi-dimensionally, by using each subscale independently. It is suggested that the bi-dimensional use of these subscales captures a more comprehensive view of acculturation (Jones & Mortimer, 2014), thus both subscales will be used for the purpose of this study.

The scale is specific to those identifying as Mexican, though has been validated and used with individuals of other Latina/o backgrounds (e.g. Thoman & Suris, 2004). It is also suggested, however, that the wording be changed from “Mexican” to one that is specific to the Latina/o ethnic identity held by the participant (Cabassa, 2003). Thus, items have been

changed to reflect a broader range of identities. For example, the statement “I like to identify myself as Mexican” was changed to “I like to identify myself as *national origin* (ex. Mexican, Ecuadorian, Chilean, etc.).” Additionally, the word “Anglo” was changed to “Caucasian” as “Anglo” is a less common identity (Martin, Krizek, Nakayama, & Bradford, 1996). Altering the ARSMA-II has been done previously to align more with other identities. For example, Jimenez, Gray, Cucciare, Kumbhani and Gallagher-Thompson, 2010) inserted the identity *Puerto Rican* in place of *Mexican* when working specifically with this population. They reported an alpha of .93 for this subscale, which is similar to the alpha in the current study. The changing of the term “Anglo” to “Caucasian” has been done in previous studies (e.g. Campos, Dunkel Schetter, Walsh & Schenker, 2007), though the reliability was not reported.

Procedures

As noted previously, data was gathered by using the online platform Amazon mTurk, which allows individuals to complete tasks for compensation. A task was created on mTurk which briefly described the purpose of the study. Any individual meeting the criteria (i.e. had a Worker ID, was 18 or over, was living in the United States, and had a 90% approval rating through mTurk) could complete. The task began with informed consent and described the purpose of the study. Participants then clicked “next” to indicate consent to participate and was directed to the survey questions. The responses on the initial task (the eligibility survey) determined if the participant was eligible for the entire research survey. To be eligible, participants needed to identify as a Latina (or Chicana/Hispanic) in any part including part of a bi-cultural or bi-ethnic identity. They also needed to identify as a woman and have experienced completed and/or attempted sexual assault. If participants were eligible, they

received a link to the full survey. If they were not eligible, they were thanked for their participation and provided national resources for support in dealing with sexual assault (i.e. National Sexual Violence Resource Center, Rape, Abuse, Incest National Network and the National Sexual Assault Hotline), as some participants were ineligible due to other factors than experiencing sexual assault and might still have been assaulted. Ineligible participants were given a code to enter at the end of the survey to receive \$.10 which was added to their mTurk accounts.

Eligible participants followed the instructions for completing the entire research, which had a separate informed consent page. The survey took between 30 and 45 minutes to complete and respondents completed demographic information questions, the *SES*, *MFCQ*, *Brief RCOPE*, *PTGI* and *ARSMA-II*. Each of the questions on the *SES* (asking about both completed and attempted sexual assault) was followed by asking if the assault occurred before the age of 18. This question was included to determine any differences between childhood and adult sexual assault.

The Brief RCOPE is a measure of religious coping, thus those participants who did not endorse a belief in God or a Higher power were not included in the religious coping analyses. However, this exclusion was done during the analysis and each participant completed the Brief RCOPE regardless of religious or spiritual affiliation.

Upon completion of the entire survey, participants were thanked for their participation and were also provided with the national sexual assault support resources as mentioned above. Each participant was given a code at the end of the survey to enter and was granted \$2.50 for completing the survey, regardless of level of completion, which was added to their mTurk accounts.

Results

Hypothesis 1

Hypothesis 1 examines how positive religious coping and meaning-focused coping affect post-traumatic growth. The initial analysis examines the relationship between meaning-focused coping with post-traumatic growth and positive religious coping with post-traumatic growth (see Table G1 for mean, standard deviation, minimum and maximum information for all variables and Table 2 for correlations of all variables). Significant correlations existed between meaning-focused coping and positive religious coping ($r = .58$) as well as between meaning-focused coping and post-traumatic growth ($r = .593$). Other significant correlations were found between positive-religious coping and Mexican Orientation Scale ($r = .363$), between the Mexican Orientation Scale and the Anglo Orientation Scale ($r = -.197$), between the Mexican Orientation Scale and post-traumatic growth ($r = .234$).

Hypothesis 1 stated that both positive religious coping and meaning-focused coping will predict post-traumatic growth. The second analysis examined both of the coping strategies upon post-traumatic growth. In order to test both coping strategies, a multiple regression was run using both meaning-focused coping and positive religious coping as independent variables (IVs) and post-traumatic growth as the dependent variable (DV). Typically, there are three methods for entering variables into a multiple regression: standard, hierarchical or sequential and statistical, though only two will be used in the current study: standard and hierarchical.

Table 1

Percentage of Demographic Variable Endorsement

	<i>N</i> ¹	<i>Percent</i>
<u>Gender</u>		
Woman	101	100%
<u>Race/Ethnicity¹</u>		
Latina	88	87.1%
Hispanic	17	16.8%
Chicana	3	3%
White/Caucasian	13	12.9%
Asian/Pacific Islander	1	1%
Black/African American	3	3%
Native American	5	5%
<u>Sexual Orientation</u>		
Heterosexual	79	79%
Bisexual	12	12%
Pansexual	5	5%
Gay/Lesbian	3	3%
Queer	1	1%
<u>Religious/Spiritual¹</u>		
Belief in God	75	74.3%
Belief in a Higher Power	89	88.1%

¹Since participants were able to identify with more than one race/ethnicity and both belief in God and a Higher Power, the percentage totals to more than 100%.

Table 2

Correlations of Measures

	MFCQ	PRC	MOS	AOS	PTGI
MFCQ ¹	1	.580**	.169	.039	.593**
PRC ²	.580**	1	.363**	-.195	.428**
MOS ³	.169	.363**	1	-.197*	.234*
AOS ⁴	.039	-.195	-.197*	1	-.166
PTGI ⁵	.593**	.428**	.234*	-.166	1

Note. ¹Meaning-Focused Coping Questionnaire, ²Positive Religious Coping, ³Mexican Orientation Scale, ⁴Anglo Orientation Scale, ⁵Post-Traumatic Growth Inventory

* Correlation significant at the .05 level

** Correlation significant at the .01 level

Standard entry is when all predictor variables are entered into the analysis in one step.

Hierarchical entry includes running a series of regressions and entering each predictor (or set of predictors) in a different step according to theoretical importance of each predictor.

(Warner, 2008).

To ensure that assumptions for a regression analysis are met, histograms were examined for each predictor and criterion variable to assess for any outliers that might skew the results. Furthermore, the relationship between variables should be linear and a scatter plot was to determine linearity of these relationships (Warner, 2008). All analyses were run using SPSS v. 24.

Assumptions for the variables were examined and scatter plots revealed that all variables were linear and there were no significant outliers. Examination of the histograms showed that both post-traumatic growth and meaning-focused coping were normally

distributed, though religious coping was skewed to the left (i.e. negatively). This is likely because some of the participants indicated no belief in God or a Higher Power, thus it is expected that those participants will use religious coping less or not at all. The participants who did not endorse a belief in God or a Higher Power were included to increase the variability of religious coping scores, thus increasing the power of the analysis. Because not all variables met the criteria for normality, bootstrapping was used to correct for this violation. Additionally, meaning-focused coping and religious coping were centered around the mean to avoid multicollinearity.

A regression was run using standard entry, as both constructs are found to be predictive of growth in the literature. The results from the regression analysis indicated that combined, meaning-focused coping and religious coping significantly predicted post-traumatic growth, $R^2 = .362$, $F(2, 98) = 27.849$, $p < 0.001$. The hypothesis was partially supported; while examined separately, both variables were significantly correlated to post-traumatic growth, however when both were used together, meaning-focused coping was a significant predictor of post-traumatic growth ($\beta = .520$, $t(98) = 5.246$, $p < .001$, CI [.577, 1.276]), though religious coping was not ($\beta = .127$, $t(98) = 1.279$, $p = .204$, CI [- .277, 1.136]).

Hypothesis 2

The second hypothesis stated that positive religious coping would be negatively correlated with acculturation, or specifically, negatively correlated with AOS and positively correlated with the MOS. Assumptions for the MOS and AOS data were examined, as positive religious coping was examined in the previous hypothesis, and both were distributed

normally and showed linearity. Bootstrapping was again used, as positive religious coping is skewed to the left and thus is non-normal.

Bivariate correlations were run using positive religious coping, the MOS and AOS (see Table 3 for correlations). Results indicated partial support for hypothesis 2. Positive religious coping was significantly positively correlated to the MOS ($r = .363$, CI [.096,.157]) and was negatively correlated to the AOS ($r = -.162$, CI [-.399,-.001]), though this correlation was non-significant. Based on the results, there is support for continuing to utilize both the MOS and AOS in subsequent analyses, as they appear to be capturing different aspects of acculturation and may have unique effects on outcome variables.

Table 3

Correlations Between Positive Religious Coping, Mexican Orientation and Anglo Orientation

	PRC	MOS	AOS
PRC ¹	1	.363**	-.195
MOS ²	.363**	1	-.197*
AOS ³	-.195	-.197*	1

Note. ¹Positive Religious Coping, ²Mexican Orientation Scale, ³Anglo Orientation Scale
** $p < .01$

Hypothesis 3

Hypothesis 3a stated that acculturation will moderate the relationship between positive religious coping and growth and have no effect on the relationship between meaning-focused coping and growth. Both the MOS and AOS were used as constructs of acculturation, thus the analysis was a regression analysis with both MOS and AOS serving as

moderators. Each of these analyses (i.e. for both religious coping and meaning-focused coping) will be described separately below.

Hypothesis 3a. Hypothesis 3a states that acculturation will moderate the relationship between positive religious coping and growth. Religious coping was the predictor variable and both MOS and AOS were moderators. All of these variables were mean-centered to protect against multicollinearity. Interaction terms were created for MOS and religious coping, AOS and religious coping and a three-way interaction term for MOS, AOS and religious coping to determine independent and combined effect on the relationship between acculturation and post-traumatic growth.

A hierarchical linear regression was used to complete this analysis, with religious coping being added to the model first, as there is more theoretical support for the relationship between religious coping and post-traumatic growth. The first model was significant, $F(1, 99) = 22.22, p < .001$, indicating that religious coping significantly predicts post-traumatic growth. Religious coping was shown to account for about 18% of the variance of post-traumatic growth, $R^2 = .175, p < .001$. The next block in the hierarchical regression included entering MOS and AOS variables. This model was also significant, $F(3, 97) = 7.875, p < .001$, although the change in R squared was not, $\Delta R^2 = .013, p = .472$. This indicates that adding AOS and MOS did not significantly affect the relationship between religious coping and growth. Individual effects of AOS and MOS in the multiple regression showed that neither MOS nor AOS significantly predicted post-traumatic growth, ($\beta = .08, t(97) = .809; \beta = -.076, t(97) = -.807, p = .422$, respectively). Lastly, all interaction terms were added in a third block of the model to determine any interaction effects between MOS and religious coping, AOS and religious coping, between AOS and MOS and between MOS, AOS and

religious coping. The overall model was significant in predicting post-traumatic growth, $F(7, 93) = 3.737, p = .001$, although the change in R squared was not, $\Delta R^2 = .001, p = .985$. Similarly to AOS and MOS independently, the interaction between these variables did not significantly influence the relationship between religious coping and post-traumatic growth. Individual effects of the interaction terms on growth were also not significant for any of the terms ($\beta = -.062, t(93) = -.6, p = .55, CI [-1.205, .625]$ for the interaction of MOS and religious coping, $\beta = .124, t(93) = 1.109, p = .27, CI [-.87, 2.314]$ for the interaction of AOS and religious coping, $\beta = -.21, t(93) = 1.633, p = .106, CI [-26.344, 3.777]$ for the interaction between AOS and MOS and $\beta = .022, t(93) = .181, p = .857, CI [-1.275, 2.084]$ for the three-way interaction between MOS, AOS and religious coping).

Hypothesis 3b. Hypothesis 3b stated that acculturation will have no effect on the relationship between meaning-focused coping and post-traumatic growth. Analyses were completed using meaning-focused coping as the predictor. Meaning-focused coping was added to the model first, as there is more theoretical support for the influence of meaning-focused coping and post-traumatic growth. The first model was significant, $F(1, 99) = 53.719, p < .001$, indicating that meaning-focused coping significantly predicts post-traumatic growth. Meaning-focused coping was shown to account for about 35% of the variance of post-traumatic growth, $R^2 = .352, p < .001$. The next block in the hierarchical regression included entering MOS and AOS variables. The overall model was significant in predicting growth, $F(3, 97) = 21.329, p < .001$ and accounted for about 40% of the variance in growth, $\Delta R^2 = .397, p = .029$, which is a significant change in R squared. Individual effects of AOS and MOS on growth indicate that while MOS was not significant ($\beta = .102, t(97) = 1.254, p = .213$), AOS was significant ($\beta = -.169, t(97) = -2.095, p = .039$). Lastly, all interaction

terms were added in a second block of the model to determine any interaction effects between MOS and meaning-focused coping, AOS and meaning-focused coping, between AOS and MOS, and between MOS, AOS and meaning-focused coping. The overall model was significant in predicting post-traumatic growth, $F(7, 93) = 9.768, p < .001$, although the change in R squared was not, $\Delta R^2 = .026, p = .381$. This indicates that the interaction between these variables did not significantly influence the relationship between religious coping and post-traumatic growth. Individual effects of the interaction terms on growth were also not significant for most terms ($\beta = .021, t(93) = .231, p = .817$ for the interaction of MOS and meaning-focused coping, $\beta = -.053, t(93) = -.585, p = .560$ for the interaction of AOS and MOS and $\beta = -.003, t(93) = -.030, p = .976$ for the three-way interaction between MOS, AOS and religious coping). However, the interaction between AOS and meaning-focused coping was significant, $\beta = .170, t(93) = 2.026, p = .046$ (see Figure 1).

Hypothesis 4

Hypothesis 4 had no formal hypothesis and was an exploratory analysis to determine which of the subscales of the MFCQ were associated with post-traumatic growth. Additionally, acculturation will be added in a subsequent partial correlation analysis to determine the relationship between meaning-focused coping and growth when controlling for level of acculturation. The subscales are: Changes in Situational Beliefs, Meaning Making, Changes in Global Beliefs, Long-term Prevention Strategies, Rational Use of Resources, Acceptance, Heuristic Thinking and Changes in Goals. Due to an error in administration, the heuristic thinking subscale, which is typically made up of two items, was only comprised of one item.

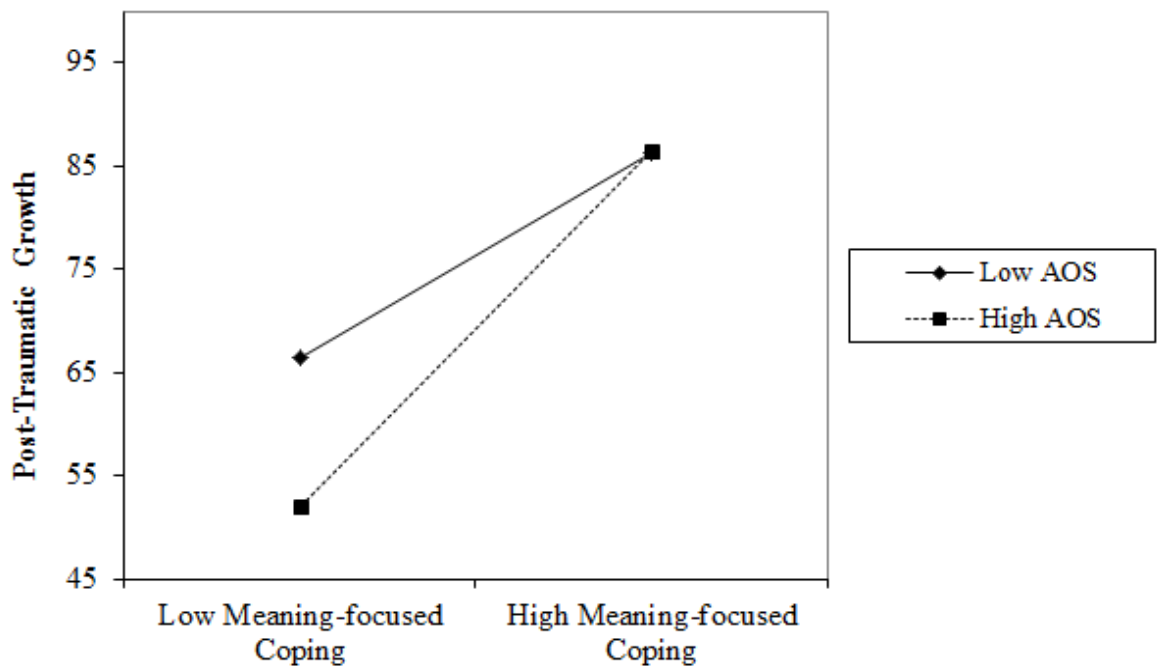


Figure 1. Interaction effect for meaning-focused coping and Anglo Orientation Scale (AOS) on post-traumatic growth.

For the overall measure of meaning-focused coping, the item that was administered incorrectly was removed and scores from the remaining 25 items was used for analyses. Each of the eight subscales was examined for the assumptions of normality and linearity. All of the subscales revealed a linear distribution and all but the Changes in Global Beliefs subscale were normally distributed. This subscale was slightly skewed to the left, which is likely because the Changes in Global Beliefs subscale assesses religious constructs such as faith and belief. As noted previously, many participants did not endorse belief in God or a Higher Power and it would be expected that they would not employ faith and beliefs as coping strategies. Bootstrapping was performed to correct for non-normally distributed data.

All subscales were scored independently and correlated with post-traumatic growth scores (for all correlations, see Table 4). Bivariate correlations revealed that all but one subscale, Acceptance ($r = .118$), was significantly related to post-traumatic growth. The

subscales of Rational Use of Resources ($r = .627$), Heuristic Thinking ($r = .559$) and Goals ($r = .532$) Global Beliefs ($r = .424$), Long-Term Prevention Strategies ($r = .352$), Situational Beliefs ($r = .302$) and Meaning-Making ($r = .295$) were all significantly correlated with post-traumatic growth.. Given that Heuristic Thinking was comprised of only one item, it should be interpreted with caution as adding the additional item may shift the results.

Level of acculturation was added to the correlational analysis between the meaning-focused coping subscales and post-traumatic growth. There was no formal hypothesis for this analysis, thus was exploratory in nature to determine the relationship between meaning-focused coping and growth while controlling for acculturation level. To determine the relationship between subscales and growth while controlling for acculturation, the AOS and MOS were added separately and then together to determine both their independent and combined effects on the relationship between growth and meaning-focused coping subscales (see table 5 for correlations). [Results indicate a similar pattern as previous bivariate correlations for AOS, MOS and combined AOS and MOS. For all three acculturation scales, Rational Use of Resources ($r = .638$, $r = .612$ and $r = .595$, respectively), Goals ($r = .519$, $r = .498$ and $r = .495$, respectively), and Heuristic Thinking ($r = .544$, $r = .534$ and $r = .501$, respectively) had the strongest correlations with growth. Acceptance ($r = .151$, $r = .157$ and $r = .156$, respectively), Meaning Making ($r = .323$, $r = .299$ and $r = .337$, respectively) and Situational Beliefs ($r = .350$, $r = .298$ and $r = .342$, respectively) had the weakest correlations to post-traumatic growth, though Meaning Making and Situational Beliefs were still significantly correlated with growth].

Table 4

Correlations of MFCQ Subscales and Post-Traumatic Growth

	PTGI	GB	SB	ACC	MM	LTPS	Goals	RUOR	HT
PTGI ¹	1	.424**	.302**	.118	.295**	.352**	.532**	.627**	.559**
GB ²	.424**	1	.394**	.046	.176	.249*	.496**	.363**	.466**
SB ³	.302**	.394**	1	.520**	.361**	.661**	.458**	.463**	.320**
ACC ⁴	.118	.046	.520**	1	.296**	.492**	.091	.184	-.022
MM ⁵	.295**	.176	.361**	.296**	1	.483**	.381**	.412**	.179
LTPS ⁶	.352**	.249*	.661**	.492**	.483**	1	.363**	.311**	.260*
Goals	.532**	.496**	.458**	.091	.381**	.363**	1	.451**	.466**
RUOR ⁷	.627**	.363**	.463**	.184	.412**	.311**	.451**	1	.636**
HT ⁸	.559**	.466**	.320**	-.022	.179	.260*	.466**	.636**	1

Note. ¹Post-Traumatic Growth Inventory, ²Global Beliefs, ³Situational Beliefs, ⁴Acceptance
⁵Meaning-Making, ⁶Long-Term Prevention Strategies, ⁷Rational Use of Resources,
⁸Heuristic Thinking

* $p < .05$

** $p < .01$

Based on the significant correlations between subscales of meaning-focused coping and post-traumatic growth, a regression was completed to determine if any of the subscales significantly predicted post-traumatic growth. A multiple regression was employed with standard entry, given that there is no theoretical basis for any of the subscales being more predictive of growth and the regression was exploratory. The analysis was first completed using all eight of the subscales as predictors and post-traumatic growth as the dependent

variable. The overall model was significant, $F(8, 91) = 13.268, p < .001$. Based on R^2 , the subscales accounted for approximately 54% of the variance in post-traumatic growth, $R^2 = .538, p < .001$.

Table 5

Partial Correlations of MFCQ Subscales and Post-Traumatic Growth When Controlling for Acculturation

Subscale	PTGI		
	AOS ¹	MOS ²	AOS and MOS
Global Beliefs	.408**	.390**	.371**
Situational Beliefs	.350**	.298**	.342**
Acceptance	.151	.157	.156
Meaning Making	.323**	.299**	.337**
Long-Term Prev. Str. ³	.402**	.363**	.413**
Goals	.519**	.498**	.495**
Rational Use of Resources	.638**	.612**	.595**
Heuristic Thinking	.544**	.534**	.501**

Note. AOS, MOS and combined AOS and MOS were control variables in this analysis.

¹Anglo Orientation Scale, ²Mexican Orientation Scale, ³Long-Term Prevention Strategies
 ** $p < .01$

[Individual effects of each of the subscales also showed that four of the subscales were significant predictors of post-traumatic growth: Situational Beliefs ($\beta = -.291, t(91) = -2.555, p = .012$), Long-Term Prevention Strategies ($\beta = .246, t(91) = 2.324, p = .022$), Goals ($\beta = .269, t(91) = 2.855, p = .005$) and Rational Use of Resources ($\beta = .128, t(91) = 1.236, p < .001$)].

An additional regression was run using both MOS and AOS as covariates, given that combining them did not shift the overall significance of correlations between subscales and growth. To control for both MOS and AOS in the regression analysis, they were added in the first block of a hierarchical regression. The eight subscales of meaning-focused coping were then added in the second block of the regression. The first model was significant in predicting post-traumatic growth, $F(2, 97) = 3.598, p = .031$ and accounted for approximately 7% of the variance in post-traumatic growth, $R^2 = .069, p = .031$. The second model was also significant, $F(10, 89) = 10.726, p < .001$, though when controlling for MOS and AOS, accounted for 48% of the variance in post-traumatic growth, $\Delta R^2 = .477, p < .001$. Individual effects reflected similar trends as the original regression analysis, with the same four subscales significantly predicting post-traumatic growth: Situational Beliefs ($\beta = -.261, t(89) = -2.227, p = .028$), Long-Term Prevention Strategies ($\beta = .263, t(89) = 2.458, p = .016$), Goals ($\beta = .237, t(89) = 2.407, p = .018$) and Rational Use of Resources ($\beta = .464, t(89) = 4.343, p < .001$).

Discussion

The purpose of the current study was to examine the relationship between religious coping, meaning-focused coping and post-traumatic growth specifically for the Latina, Hispanic and Chicana population who have experienced sexual assault. Additionally, acculturation was examined in relation to these relationships to determine any influence of acculturation. Lastly, the eight subscales of meaning-focused coping were explored to determine if any of the subscales were more related to and more predictive of post-traumatic growth and whether these relationships were influenced by acculturation.

Religious coping and meaning-focused coping were both hypothesized to significantly predict post-traumatic growth. This hypothesis was partially supported. The results showed, that when entered together in a regression analysis, only meaning-focused coping was significant in predicting post-traumatic growth. This adds support to previous findings of the influence of meaning-focused coping on growth. Traditionally, researchers have used only a few questions about meaning-focused coping within broader, more general measures of coping, and findings in the current study contribute support for the use of more comprehensive meaning-focused coping measures. The non-significant result of religious coping predicting post-traumatic growth was surprising, as religious coping has consistently been found to be one of the biggest predictors of post-traumatic growth in the literature (e.g. Prati & Pietrantonio, 2009). One potential reason for the inconsistent finding for the influence of religious coping on growth might be that the two constructs are confounded. That is, individuals might employ religious coping as a way to make meaning of the traumatic event, thus the influence of religious coping itself could have been accounted for by the measure of meaning-focused coping. In fact, Shaw, Joseph and Linley (2005) examined several articles which explored the relationship between religious coping and post-traumatic growth and suggested that one impact of employing religious coping following a traumatic event was to provide a framework with which to make meaning of the traumatic event. Thus, in the current study, it might be that religious coping is a form of coping used to make meaning of the sexual assault, but its effect on post-traumatic growth can be accounted for by the use of a more comprehensive meaning-focused coping questionnaire. Additionally, a recent study on the concepts of *religiosity* and *thriving* (different concepts than the ones in the current study, but similar in theory, see differences as noted above) found similar results. Morgan-Consoli

and colleagues (2017, in preparation) found that though spirituality and meaning-making were significant predictors of thriving, religiosity was not. The authors suggest, as noted in the current study, that perhaps the importance of spirituality/religion lies in making meaning of the difficult situation and the actual practice of religion is less important. These findings lend support to the findings in the current study.

It was hypothesized that positive religious coping would be negatively correlated with more acculturation. For the purposes of this study, acculturation was measured bidimensionally (i.e. with the Mexican Orientation Scale and Anglo Orientation Scale), thus the hypothesis can be understood as positive religious coping will be negatively correlated with the Anglo Orientation Scale (AOS; endorsement of mainstream U.S. identity) and positively correlated with the Mexican Orientation Scale (MOS; endorsement of Latina/o identity). This hypothesis was partially supported, as there was a significant positive relationship between religious coping and the MOS, and though the relationship between religious coping and the AOS was negative, it was non-significant. This suggests that increased positive religious coping was related to increased orientation to Latina/o culture. The lack of significance between the AOS and religious coping might be that the sample size was not large enough to identify the true nature of this relationship. Previous research has indicated that Latina women who are more acculturated tended to use more negative coping styles and were less likely to use religious coping than less acculturated Latina women (Sanchez, Rice, Stein, Milburn & Rotheram-Borus, 2010). However, the study done by Sanchez and colleagues measures acculturation via time spent in the United States, whether the participant was born in the United States and language preferences. Given the complex nature of acculturation, perhaps the more comprehensive AOS measure used in the current

study captured different aspects of acculturation (such as strength of ethnic identity) than the study by Sanchez and colleagues (2010). Thus, measurement differences might account for the lack of significance of this finding. It also might be that no true relationship exists between Anglo orientation and religious coping. As evidenced by the findings in the current study, it might be that higher ethnic identity is significantly related to higher use of religious coping, but that does not necessarily imply that higher levels of mainstream U.S. culture identification is significantly related to lower levels of religious coping. In other words, perhaps these constructs are not two ends of a spectrum. Indeed, this would support a non-unidimensional view of acculturation, which has become prominent in the literature after critiques of the previous linear models of acculturation (Berry, 1980).

The third set of hypotheses stated that acculturation will moderate the relationship between religious coping and post-traumatic growth and that acculturation will not moderate the relationship between meaning-focused coping and growth. The first hypothesis was not supported; acculturation did not moderate the relationship between religious coping and growth. Religious coping significantly predicted post-traumatic growth and this relationship was not altered by the inclusion of MOS, AOS or any interaction terms into the regression analysis. This suggests that religious coping significantly predicts post-traumatic growth at all levels of acculturation. While there is support for the impact of acculturation level on the use of religious coping (Sanchez, Rice, Stein, Milburn & Rotheram-Borus, 2010), the results from the current study indicate that this impact does not affect the relationship between religious coping and post-traumatic growth. One possible explanation from the findings is that there is another construct that influences the relationship between religious coping and post-traumatic growth for this population. Research has suggested strong support for the

influence of social support on post-traumatic growth (e.g. Prati & Pietrantonio, 2009), a construct not included in the current study. In fact, extant literature examining the role of social support within religious coping suggest that finding social support within a religious context is one of the effects of employing religious coping (Shaw, Joseph & Linley, 2005). Previous research identifies that Latina women who experience sexual assault are less likely to seek support informally (Sabina, Cuevas & Schally, 2012), however, seeking support through religious coping might be more culturally appropriate. It has been documented in the literature that the discussion of sex and sexual acts is not done often in Latina/o households (O'Sullivan, Meyer-Bahlburg, Watkins, 2001), at least compared to African American households, indicating that there might be a cultural influence in the comfort to discuss sex in general. This could mean that since Latina women seek less informal support when coping with sexual assault (Sabina, Cuevas & Schally, 2012), which might be culturally driven given the reluctance to discuss sex and sexual acts, they attempt to find social support in more culturally relevant ways (i.e. through religious communities). Thus, perhaps the construct of social support influences the relationship between religious coping and post-traumatic growth specifically for Latina women who have experienced sexual assault. Further research is needed to explore this relationship.

It was hypothesized that acculturation would not affect the relationship between meaning-focused coping and growth, as there is not substantial literature supporting this interaction. This hypothesis was partially supported; the results showed that acculturation did not significantly alter the relationship between meaning-focused coping and post-traumatic growth. However, an interesting finding emerged from the moderation analysis. Both the main effect of AOS and the interaction of meaning-focused coping and AOS were significant

in predicting post-traumatic growth. The main effect of AOS on growth was negative, meaning that higher levels of AOS predicted lower levels of post-traumatic growth, regardless of level of meaning-focused coping. The interaction between the constructs of meaning-focused coping and AOS also significantly predicted post-traumatic growth, indicating that the effect of meaning-focused coping on post-traumatic growth is affected by level of AOS. For participants who used higher levels of meaning-focused coping, regardless of level of AOS, had higher post-traumatic growth. However, for participants with lower levels of meaning-focused coping, those who were higher on AOS had significantly lower levels of post-traumatic growth than those who were low on meaning-focused coping and lower on both meaning-focused coping and AOS. Previous research has found that more acculturated, specifically for the Latina population, have been shown to employ more avoidance coping than less acculturated Latinas (Sanchez, Rice, Stein, Milburn & Rotheram-Borus, 2010). Possible explanations for this finding could be that there is something about high Anglo Orientation that is negatively associated with post-traumatic growth or alternatively, there is something protective about having a low Anglo Orientation within the context low meaning-focused coping. One possibility, as explored earlier, might be that those with higher AOS employed less religious coping, which is related to less growth. Results from the current study found a negative relationship between religious coping and AOS, though the relationship was not-significant. Previous studies have found that White women had lower levels of post-traumatic growth as compared to Hispanic women, which was explained by the use of religious coping (Smith, Dalen, Bernard and Baumgartner, 2008). Additionally, the Hispanic Paradox or Latino Paradox might also provide an explanation for the findings. This paradox refers to the phenomenon that recently immigrated Latina/os tend

to have better health outcomes than their non-Latina/o counterparts (e.g. Markides & Coreil, 1986). Indeed, Alegria and colleagues (2008) found that U.S. born Latinos had significantly more psychiatric issues than immigrant Latinos. However, they found that when unaggregated into national origins, these results were not supported. This indicates that perhaps the Latino Paradox might be true for only immigrants of certain Latino countries. This phenomenon might account for the seemingly protective nature of having a low AOS orientation found in the current study.

Lastly, the fourth hypothesis was exploratory in nature; there was no formal hypothesis. The eight subscales of the meaning-focused coping questionnaire were correlated with post-traumatic growth to determine which factors were associated with growth. Results indicated that all but one, Acceptance, were significantly and positively correlated with growth. Of note, Heuristic Thinking was mis-administered, thus the subscale used in these analyses is comprised of only one question. These results indicate that most coping strategies used tended to be related to more growth, with the exception of Acceptance. This was an interesting finding, as previous research has supported the use of Acceptance coping in relation to post-traumatic growth for survivors of sexual assault (Cole & Lynn, 2010). Previous findings suggest that there is a difference between active acceptance coping (i.e. acknowledging the reality of the event) and resigning acceptance coping (i.e. resignative thoughts or negative future expectations), with resigning acceptance coping being negatively correlated with positive reinterpretation and growth (Nakamura & Orth, 2005). In the current study, it might be that participants viewed the acceptance coping items as a resigning or passive form of coping, perhaps explaining the non-significant relationship between Acceptance and growth. The partial correlation analysis was run three additional times for

each subscale which included the AOS separately, the MOS separately and both the AOS and MOS as covariates. Results from these analyses indicated that the overall significance of the relationship between the subscales and post-traumatic growth were not altered by the inclusion of acculturation scales, meaning that they were not significant covariates.

A regression analysis was completed using the subscales of post-traumatic growth and the results indicated that four of the eight subscales significantly predicted post-traumatic growth: Situational Beliefs, Goals, Rational Use of Resources and Long-Term Prevention Strategies. The Beta coefficient from the Situational Beliefs subscale was negative, though the correlation was positive. Given these results, the results from the regression analysis is not interpretable. The results from the other three scales indicate these subscales in particular are predictive of growth within the meaning-focused coping measure. The subscale of Goals incorporated establishing new values and goals in life as a coping strategy, Rational Use of Resources largely deals with seeking support from others and seeking out new opportunities and Long-Term Prevention Strategies includes adjusting views on the events over time and believing that due to going through the event, participants thought they were better able to handle future events. These significant predictors of growth support previous findings of the benefit of active, approach coping, though previous research was not specifically done on the Latina population (e.g. Stanton, Bower & Low, 2006). An additional regression analysis was run that controlled for acculturation using both the MOS and AOS as control variables. Results from this analysis did not alter the significance of the predictors (i.e. all three subscales that were originally significant predictors remained significant when controlling for acculturation). This suggests that these four subscales of meaning-focused coping are

significant regardless of acculturation, though future research might more fully explore the relationship.

Limitations

One limitation in this study is the mis-administration of one of the meaning-focused coping subscales. Because one item was removed due to this mis-administration, the results from the meaning-focused coping questionnaire as a whole and with the subscales might be altered. Thus, results using the Heuristic Thinking subscale of the meaning-focused coping scale should be interpreted with caution.

Another limitation of the study was the use of only the ARMSA-II to encapsulate acculturation. Previous research has been inconsistent about the definition of acculturation, which leads to inconsistencies in the measurement of such a complex construct (Thomson & Hoffman-Goetz, 2009). With a variety of aspects making up acculturation, including but not limited to: language use, change in diet, cultural practices, values, attitudes and identities (Schwartz, Unger, Zamboanga, & Szapocznik, 2010), it can be difficult to fully measure the construct of acculturation. Thus, the findings in this study might not fully represent acculturation in its complexity.

The use of mTurk is a limitation another limitation of the study. As with online survey platforms, there is no way to ensure that the participants were actually members of the target population. This might alter the results of the current study and thus impact the ability to generalize the findings to the Latina population who have experienced sexual assault.

Another limitation of the study is that the Meaning-Focused Coping Questionnaire has not been validated with the Latina population. Though the current study had two Latina graduate students review the measure to ensure reliability, graduate students are not

necessarily the target population. It might be that the participants recruited through mTurk did not believe that the measure was culturally appropriate or relevant, which might have altered their responses to the item in the questionnaire.

Lastly, the current study does not have a true experimental design, thus it is not certain if coping styles predicted growth or if it is the opposite; that growth predicted coping styles. Interestingly, research has shown that experiencing trauma has led to more religious identification and beliefs (Shaw, Joseph & Linley, 2005), sometimes well after the trauma occurs (Ullman, 1982). Though there is no extant research that supports the increased use of coping following growth from trauma, there is no certainty that the relationship does not exist.

Clinical Implications

The findings from the current study provide many implications for clinical work with Latina women who have experienced sexual assault. Based on the findings, clinical interventions aimed at increasing coping strategies should attempt to assess meaning based coping in general for this population, while acknowledging that religious coping might play an important role in how one makes meaning of their traumatic event. Interestingly, results from the current study do not support a difference in the impact of religious coping based on level of acculturation. Thus religious coping might be an effective form of coping across all level of acculturation, increasing its generalizability.

Within meaning-focused coping, interesting results were found in the current study in relation to subscales that are more related and predictive of post-traumatic growth. Clinical interventions might target specific subscales to aide in the promotion of growth. That is, helping the client gain perspective about the traumatic event, establish new goals in life, seek

support from others and find new opportunities, adjust their views on the events over time and exploring how they might be better able to handle traumatic events in the future might be beneficial for encouraging growth. For example, one approach to therapy or therapeutic interventions that might address these issues in a culturally sensitive way is the use of Narrative therapy. Narrative therapy aims to establish a new story about a person's life, one that is in line with values and beliefs (White, & Epston, 1990). The approach of Narrative therapy can aide in creating meaning of the traumatic event to incorporate that event into client's lives in a meaningful way. It also aims to be culturally relevant, as it allows the individual to discuss their cultural identity the way they experience it. Thus, Narrative therapy might be an appropriate way to work with Latina women who have experienced sexual assault to help create meaning. It is important to note that while the current study sheds light on the significance of meaning-focused and religious coping, they are not the only approaches to working with this population that might be beneficial.

Research Implications and Future Directions

There are many research implications from the findings of the current study that influence the measurement of these constructs in future research. One significant implication from the findings is the potential usefulness of meaning-focused coping with this population. As previously mentioned, the Meaning-Focused Coping Questionnaire was created and normed on a sample of Chinese adolescents, though this study suggests its usefulness for the Latina population as well, at least for use within the context of sexual assault. Though further validation is needed, this measure might be a tool that can be used to assess specifically meaning-focused coping within other populations and for other traumatic events.

An interesting result from this study suggests the possible conflation of religious coping and meaning-focused coping for this population. That is, the impact of religious coping on post-traumatic growth might be accounted for by the broader measure of meaning-focused coping, as religious coping is often a form of making meaning of the situation. While religious coping might be useful and beneficial for this population, perhaps research efforts can incorporate more comprehensive forms of meaning focused coping to fully assess other important coping strategies. Indeed, many articles that examine religious coping, often do so independently of other measures of coping (e.g. Ano & Vasconcelles, 2005), thus potentially neglecting the influence of broader means of coping. For future research and based on the current findings, studies examining religious coping should also include broader and more comprehensive measures of meaning-focused coping, or might include religious coping as a subset of meaning-focused coping.

The current findings support the importance of specific subscales of meaning-focused coping for this population in relation to post-traumatic growth, namely Rational Use of Resources, Goals, Situational Beliefs and Long-Term Prevention Strategies. Future research might incorporate more specific or targeted measures of meaning-focused coping to better understand the impact of these subscales on post-traumatic growth.

The results did not support the hypothesis that acculturation influenced the relationship between religious coping and post-traumatic growth. While there are plausible explanations for this finding, as previously discussed, further research is needed to fully understand the relationship between these constructs. Future examination of religious coping within the Latina population might assess other constructs to help explain the importance of religious coping, such as the role of social support.

Lastly, future research might explore the relationship between acculturation and constructs of meaning-focused coping. The results from the current study suggest that the impact of meaning-focused coping on growth depends on mainstream U.S. culture identification. There is little extant research examining the constructs of acculturation and meaning-focused coping, so little is known about potential explanations to better understand this effect. It is recommended that future research explore the concept of religious coping and acculturation in relation to meaning-focused coping.

Additionally, future research might incorporate qualitative research to better understand, from the participants' point of view, the usefulness of meaning-focused and religious coping and to explore what factors, specifically, are important within these constructs.

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Appendix A

Demographic Questionnaire

1. Please indicate your age:
2. Please indicate your gender identity:
 - Man
 - Woman
 - Transgender
 - Gender Non-Conforming
 - Decline to State
 - Other, please specify _____
3. Please indicate your ethnic/racial identity
 - Caucasian/White
 - Latina/o
 - Chicana/o
 - Hispanic
 - Asian/Pacific Islander
 - Black
 - African American
 - Native American
 - Bi-Racial or Bi-Cultural (please specify)
 - Decline to State
 - Other, please specify
4. Please indicate your sexual orientation
 - Heterosexual
 - Gay
 - Lesbian
 - Bisexual
 - Pansexual
 - Decline to State
 - Other, please specify
5. Do you believe in God? Yes or No
6. Do you believe in a Higher Power? Yes or N

Appendix B

Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996)

Indicate for each of the statements below the degree to which this change occurred in your life as a result of your sexual assault, using the following scale:

- 0= I did not experience this change as a result of my sexual assault.*
1= I experienced this change to a very small degree as a result of my sexual assault.
2= I experienced this change to a small degree as a result of my sexual assault.
3= I experienced this change to a moderate degree as a result of sexual assault.
4= I experienced this change to a great degree as a result of my sexual assault.
5= I experienced this change to a very great degree as a result of my sexual assault.

1. I changed my priorities about what is important in life. (V)
2. I have a greater appreciation for the value of my own life. (V)
3. I developed new interests. (II)
4. I have a greater feeling of self-reliance. (III)
5. I have a better understanding of spiritual matters. (IV)
6. I more clearly see that I can count on people in times of trouble. (I)
7. I established a new path for my life. (II)
8. I have a greater sense of closeness with others. (I)
9. I am more willing to express my emotions. (I)
10. I know better that I can handle difficulties. (III)
11. I am able to do better things with my life. (II)
12. I am better able to accept the way things work out. (III)
13. I can better appreciate each day. (V)
14. New opportunities are available which wouldn't have been otherwise. (II)
15. I have more compassion for others. (I)
16. I put more effort into my relationships. (I)
17. I am more likely to try to change things which need changing. (II)
18. I have a stronger religious faith. (IV)
19. I discovered that I'm stronger than I thought I was. (III)
20. I learned a great deal about how wonderful people are. (I)
21. I better accept needing others. (I)

Appendix C

Sexual Experiences Survey (SES; Koss, Abbey, Campbell, Cook, Norris, Testa, et al., 2007)

Have you ever experienced *completed* unwanted sex acts including oral;

YES NO

vaginal (i.e. inserted their fingers, objects or penis into vagina);

or anal (i.e., inserted their fingers, objects, or penis into butt)

sex without your consent

Have you ever experienced *attempted* unwanted sex acts including oral;

YES NO

vaginal (i.e. inserted their fingers, objects or penis into vagina);

or anal (i.e., inserted their fingers, objects, or penis into butt)

sex without your consent

Appendix D

Meaning-Focused Coping Questionnaire (MFCQ; Gan, Guo & Tong, 2013)

Indicate the degree to which you used the following coping strategies when coping with the traumatic event

1 = I didn't do this at all

2 = I did this a little bit

3 = I did this a medium amount

4 = I did this a lot

1. I tried to consider the event from a broader standpoint.
2. I looked at the issue from a broader point of view.
3. When I handled other problems that arose after this event, I could reflect on the matter from more perspectives.
4. I forced myself to do something constructive.
5. I considered why the traumatic event happened at that moment
6. I considered why a traumatic event happened to me.
7. I considered the reasons that a traumatic event happens
8. I wondered whether there is some special meaning in the occurrence of this event
9. I sought help from my faith and beliefs
10. I believed in my faith and beliefs
11. I tried to seek consolation from both my faith and beliefs.
12. I tried to seek consolation from my beliefs.
13. I adjusted my view on this matter continuously over time
14. Some time after the occurrence of the event, I reconsidered my coping style
15. I believed, due to the enrichment of my experience, I could handle a traumatic event better.
16. I accepted love and understanding from others
17. I gained strength from the help of others.
18. I tried to seize opportunities that could get me out of the bad situation

19. I have accepted the fact that something had happened and that it could not be changed
20. I learned to accept the event, and it has become a part of my life
21. I have accepted the fact that things have happened.
22. I sought the opinions of others on this matter.
23. The words of my classmates or others gave me the inspiration for a new idea.
24. I readjusted my goal(s) in life
25. I sought a new outlook on life and reassessed my values.
26. During the course of events, I tried to establish new values.

Appendix E

Brief RCOPE (Pargament, Koenig & Perez, 2000)

Indicate the degree to which you used these coping strategies when dealing with your crisis.

Answer based not on whether the strategy worked or not, but how much or how frequently you used them.

0 = Not at all

1 = Somewhat

2 = Quite a bit

3 = A great deal

1. Looked for a stronger connection with God
2. Sought God's love and care
3. Sought help from God in letting go of my anger
4. Tried to put my plans into action together with God
5. Tried to see how God might be trying to strengthen me in this situation
6. Asked forgiveness for my sins
7. Focused on religion to stop worrying about my problems
8. Wondered whether God had abandoned me
9. Felt punished by God for my lack of devotion
10. Wondered what I did for God to punish me
11. Questioned God's love for me
12. Wondered whether my church had abandoned me
13. Decided the devil made this happen
14. Questioned the power of God

Appendix F

Acculturation Rating Scale for Mexican Americans-II: English Version (Cuellar, Arnold, & Maldonado, 1995)

Indicate the degree to which you agree with the following statements using the scale below.

Scale 1: *1 = Not at all; 2 = Very little or not very often; 3 = Moderately; 4 = Much or very often; 5 = Extremely often or almost always*

1. I speak Spanish
2. I speak English
3. I enjoy speaking Spanish
4. I associate with Anglos
5. I associate with Mexicans and/or Mexican Americans
6. I enjoy listening to Spanish language music
7. I enjoy listening to English language music
8. I enjoy Spanish language on TV
9. I enjoy English language on TV
10. I enjoy English language movies
11. I enjoy Spanish language movies
12. I enjoy reading (e.g., books in Spanish)
13. I enjoy reading (e.g., books in English)
14. I write letters in Spanish
15. I write letters in English
16. My thinking is done in the English language
17. My thinking is done in the Spanish language
18. My contact with Mexico has been

19. My contact with the USA has been
20. My father identifies or identified himself as 'Mexicano'
21. My mother identifies or identified herself as 'Mexicana'
22. My friends, while I was growing up, were of Mexican origin
23. My friends, while I was growing up, were of Anglo origin
24. My family cooks Mexican foods
25. My friends now are of Anglo origin
26. My friends now are of Mexican origin
27. I like to identify myself as an Anglo American
28. I like to identify myself as a Mexican American
29. I like to identify myself as a Mexican
30. I like to identify myself as an American

Appendix G

Table G1

Mean, Standard Deviation, Minimum and Maximum Information for All Measures

	<i>M</i>	<i>SD</i>	Min.	Max
MFCQ ¹	65.303	13.056	29	98
PRC ²	16.506	7.308	7	28
MOS ³	3.232	0.814	1.59	4.94
AOS ⁴	3.977	0.503	2.69	5
PTGI ⁵	73.788	23.738	21	126

¹Meaning-Focused Coping Questionnaire

²Positive Religious Coping

³Mexican Orientation Scale

⁴Anglo Orientation Scale

⁵Post-Traumatic Growth Inventory